

## ABSTRACT OF THE DISCLOSURE

### BRAIN IMAGE ANALYSIS SYSTEM AND METHOD

An image analysis system which can take an image, especially a brain image obtained by CT scan, transform the image by calculating a gradient matrix, and provide information which can form the basis of a diagnosis for a particular pathology, especially ischemic stroke in the brain, and a method for using the system is disclosed. The image analysis system can analyze an image to determine the presence and size of a region of edema, acute free blood, a mass, sulcal effacement, and other conditions to generate a diagnosis or probability of ischemic stroke, hemorrhagic stroke, a mass or other pathology in the brain.

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